

CLAIMS

What is claimed is:

- 1 1. A method for monitoring voice application calls over a network, comprising:
 - 2 (a) identifying a first leg of a voice application call;
 - 3 (b) creating a unique key based on the first leg of the voice application call utilizing
4 a first session object;
 - 5 (c) identifying a second leg of the voice application call;
 - 6 (d) creating another unique key based on the second leg of the voice application call
7 utilizing a second session object; and
 - 8 (e) associating both the first and second session objects with a single application
9 object.
- 1 2. The method as recited in claim 1, wherein each leg of the voice application call
2 takes place between an end point and a call manager.
- 1 3. The method as recited in claim 2, wherein each unique key associated with the
2 session objects is created utilizing port numbers associated with the end point
3 and the call manager.
- 1 4. The method as recited in claim 2, wherein each leg of the voice application calls
2 is identified upon receipt of a message.
- 1 5. The method as recited in claim 4, wherein the message includes a station call
2 information message.

- 1 6. The method as recited in claim 4, wherein the message includes a plurality of
2 fields.
- 1 7. The method as recited in claim 6, and further comprising creating another unique
2 key associated with the application object.
- 1 8. The method as recited in claim 7, wherein the unique key associated with the
2 application object is created based on the fields.
- 1 9. The method as recited in claim 6, wherein the message includes a calling party
2 name field, a calling party port number field, a called party name field, and a
3 called party port number field.
- 1 10. The method as recited in claim 1, and further comprising identifying the
2 completion of the voice application call.
- 1 11. The method as recited in claim 10, wherein the completion of the voice
2 application call is identified upon receipt of a completion message.
- 1 12. The method as recited in claim 11, wherein the completion message is selected
2 from the group consisting of a station on hook message and a station stop media
3 transmission message.
- 1 13. A computer program product for monitoring voice application calls over a
2 network, comprising:
3 (a) computer code for identifying a first leg of a voice application call;
4 (b) computer code for creating a unique key based on the first leg of the voice
5 application call utilizing a first session object;
6 (c) computer code for identifying a second leg of the voice application call;

- (d) computer code for creating another unique key based on the second leg of the voice application call utilizing a second session object; and
- (e) computer code for associating both the first and second session objects with a single application object.

14. The computer program product as recited in claim 13, wherein each leg of the voice application call takes place between an end point and a call manager.

15. The computer program product as recited in claim 14, wherein each unique key associated with the session objects is created utilizing port numbers.

16. The computer program product as recited in claim 14, wherein each unique key associated with the session objects is created utilizing port numbers associated with the end point and the call manager.

17. The computer program product as recited in claim 14, wherein each leg of the voice application calls is identified upon receipt of a message.

18. The computer program product as recited in claim 17, wherein the message includes a station call information message.

19. The computer program product as recited in claim 17, wherein the message includes a plurality of fields.

20. The computer program product as recited in claim 19, and further comprising computer code for creating another unique key associated with the application object.

- 1 21. The computer program product as recited in claim 20, wherein the unique key
2 associated with the application object is created based on the fields.
- 1 22. The computer program product as recited in claim 19, wherein the message
2 includes a calling party name field, a calling party port number field, a called
3 party name field, and a called party port number field.
- 1 23. The computer program product as recited in claim 13, and further comprising
2 computer code for identifying the completion of the voice application call.
- 1 24. The computer program product as recited in claim 23, wherein the completion of
2 the voice application call is identified upon receipt of a completion message.
- 1 25. The computer program product as recited in claim 24, wherein the completion
2 message is selected from the group consisting of a station on hook message and
3 a station stop media transmission message.
- 1 26. The computer program product as recited in claim 23, and further comprising
2 computer code for incrementing an index variable upon the receipt of the
3 completion message.
- 1 27. A system for monitoring voice application calls over a network, comprising:
2 (a) logic for identifying a first leg of a voice application call;
3 (b) logic for creating a unique key based on the first leg of the voice application call
4 utilizing a first session object;
5 (c) logic for identifying a second leg of the voice application call;
6 (d) logic for creating another unique key based on the second leg of the voice
7 application call utilizing a second session object; and

- 8 (e) logic for associating both the first and second session objects with a single
9 application object.

- 1 28. A system for monitoring voice application calls over a network, comprising:
2 (a) means for identifying a first leg of a voice application call;
3 (b) means for creating a unique key based on the first leg of the voice application
4 call utilizing a first session object;
5 (c) means for identifying a second leg of the voice application call;
6 (d) means for creating another unique key based on the second leg of the voice
7 application call utilizing a second session object; and
8 (e) means for associating both the first and second session objects with a single
9 application object.

- 1 29. A method for monitoring voice application calls over a network, comprising:
2 (a) identifying a plurality of legs of a voice application call each with a session
3 object associated therewith;
4 (b) creating a single application object; and
5 (c) handling the session objects associated with the legs of the voice application call
6 with the single application object.

- 1 30. A data structure stored in memory for monitoring voice application calls over a
2 network, comprising an application object adapted for handling two legs of a
3 voice application call.

- 1 31. A method for monitoring voice application calls over a network, comprising:
2 (a) receiving a first message including a plurality of fields;

- 3 (b) identifying a first leg of a voice application call between a first end point and a
4 call manager involving a first Internet Protocol (IP) telephone utilizing a skinny
5 client control protocol (SCCP), in response to the first message;
- 6 (c) creating a unique key based on the first leg of the voice application call utilizing
7 a first session object, wherein the unique key is created based on port numbers of
8 the first end point and the call manager;
- 9 (d) receiving a second message including a plurality of fields;
- 10 (e) identifying a second leg of the voice application call between a second end point
11 and the call manager involving a second Internet Protocol (IP) telephone
12 utilizing SCCP, in response to the second message;
- 13 (f) creating another unique key based on the second leg of the voice application call
14 utilizing a second session object, wherein the another unique key is created
15 based on port numbers of the second end point and the call manager;
- 16 (g) associating both the first and second session objects with a single application
17 object;
- 18 (h) creating another unique key based on the fields of the first message and the
19 fields of the second message for identifying the single application object;
- 20 (i) identifying the completion of the voice application call upon the receipt of a
21 completion message; and
- 22 (j) incrementing an index variable upon the receipt of the completion message.